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July 15, 1992

Document Processing Desk - 6(a)(2)  
Office of Pesticide Programs  
U.S. Environmental Protection Agency  
401 M Street SW  
Washington, DC 20460-0001



RE: FIFRA 6(a)(2) REPORT  
Lorsban\* 4E INSECTICIDE  
EPA REG. NO. 62719-23  
ACTIVE INGREDIENT: CHLORPYRIFOS  
CAS REGISTRY NUMBER; 002921-88-2

DowElanco submits the following information in response to its understanding of the U.S. Environmental Protection Agency's interpretation of FIFRA 6(a)(2). However, DowElanco does not believe that this information regards an "unreasonable adverse effect on the environment" or that it is reportable under FIFRA 6(a)(2).

DowElanco recently received information regarding an alleged fish kill in two ponds following an airblast application of Lorsban 4E to an 33 acre orange grove. The two ponds were located on the east side of the orange grove (see map). One pond is 30 meters wide by 100 meters long (0.7 acres) and 1-2 meters deep, while the second pond is 20 meters wide by 50 meters long (0.2 acres) and 4-5 meters deep. Both ponds are spring fed, contained within 10 foot high dikes, and slightly elevated above the groves. Therefore, surface and subsurface runoff from the grove into the ponds is unlikely. The ponds are approximately 20 meters from the primary citrus grove. However, surrounding the ponds are eucalyptus and a single row of citrus trees on the dikes approximately 3-4 meters from the ponds.

Lorsban 4E (contains 4 pounds a.i. chlorpyrifos per gallon) was applied at a rate of 8 pints/acre in a spray volume of approximately 140 gallons/acre. At the beginning of the application the temperature was 70 F and the wind was calm. By the end of the application the temperature was 83 F and the wind was from the south at approximately 5 miles per hour. At one point, the tractor was approximately 15 meters from the ponds spraying through the eucalyptus and single row of citrus trees toward the ponds. Direct application was observed into the ponds during the application.

Several aquatic species were first noticed dead in the ponds three days after the application. At that time, 17 large mouth bass, 4 black crappie, 350 hybrid sunfish, 5 catfish, crayfish, frogs, tadpoles and water samples were collected from each pond for analysis for chlorpyrifos. Sediment samples were collected the following day.

\* Trademark of DowElanco

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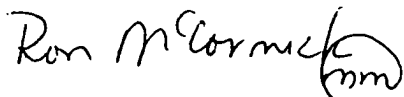
Analysis of these water, sediment and fish samples confirmed the presence of chlorpyrifos. Chlorpyrifos levels in the water samples ranged from nondetectable to 3.5 ppb; in the sediment samples ranged from 0.015 to 0.325 ppm; and in the fish samples ranged from 0.24 to 4.40 ppm.

It should be noted that this orange grove, except for the single row of citrus trees around the ponds, had been treated approximately one month earlier with Lorsban 4E at a rate of 7 pints/acre in a spray volume of approximately 140 gallons/acre without any incident. This fact, in conjunction with evaluation of the events resulting in this incident, indicates that the pond contamination and resultant aquatic wildlife mortality was a consequence of direct application into the ponds and not runoff or leaching through the soil.

The Lorsban 4E label has the following precautionary and environmental hazard statements: "This pesticide is toxic to birds and wildlife, and extremely toxic to fish and aquatic organisms. Do not apply directly to water. Drift and runoff from treated areas may be hazardous to aquatic organisms in adjacent aquatic sites." Additionally, DowElanco provides training programs, videos and literature to end-users which include precautions to avoid off-site movement of the active ingredient.

If you wish to discuss this matter further, please do not hesitate to contact either of us.

Regards.

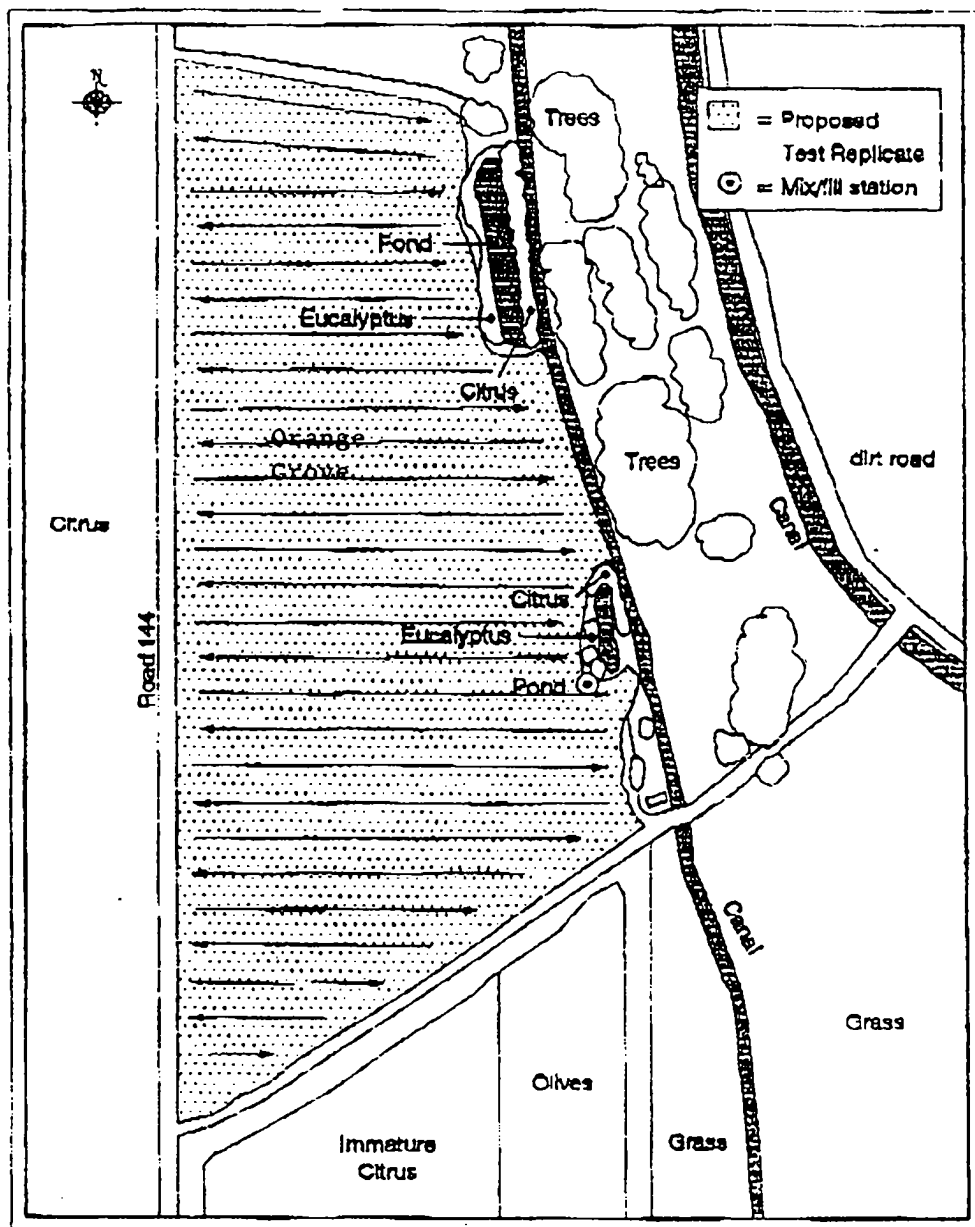
Handwritten signature of Ron A. McCormick in cursive script.

Ron A. McCormick, PhD  
Manager, Product Stewardship  
317-871-8244

Handwritten signature of Michael W. Melichar in cursive script.

Michael W. Melichar  
Product Registration Manager  
317-870--7273

Map of Orange Grove



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DEPARTMENT OF PESTICIDE REGULATION

1220 N Street, P. O. Box 942871  
Sacramento, California 94271-0001



November 13, 1992

ID #135992

Mr. Ron A. McCormick  
Manager, Product Stewardship  
DowElanco  
9002 Purdue Road  
Indianapolis, Indiana 46268-1189

Dear Mr. McCormick:

Lorsban 4E Insecticide - Possible Adverse Effect

The subject information has been received and reviewed by our evaluation staff. It has been determined that no regulatory action is necessary at this time as the adverse effect is the result of use in conflict with the label or current regulations.

If you have any questions, please contact me.

Sincerely,

A handwritten signature in cursive script, reading "Kathleen Wynn", is positioned above the typed name and title.

Kathleen A. Wynn  
Registration Specialist  
Pesticide Registration Branch  
(916) 654-0567

mcv/lors.111392

DowElanco  
9002 Purdue Road  
Indianapolis, IN 46268-1189

July 20, 1992



Department of Pesticide Regulation  
1220 N Street  
Post Office Box 942871  
Sacramento, CA 94271-0001

RE: SUBMISSION UNDER CALIFORNIA FOOD & AGRICULTURE CODE 12825.5  
Lorsban\* 4E INSECTICIDE (EPA REG. NO. 62719-23)

In response to California Notice 92-5, DowElanco identifies the enclosed information as a submission made pursuant to California Food & Agriculture Code 12825.5. In addition, DowElanco submitted this information to the U.S. Environmental Protection Agency pursuant to Section 6(a)(2) of the Federal Insecticide, Fungicide and Rodenticide Act.

If you have any questions regarding this submission, please do not hesitate to contact either of us.

Regards,

A handwritten signature in black ink that reads "Ron McCormick".

Ron A. McCormick  
Manager, Product Stewardship  
317-871-8244

A handwritten signature in black ink that reads "Michael W. Melichar".

Michael W. Melichar  
Product Registration Manager  
317-870-7273

cc: C. Blewett - DowElanco

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